

101.13 - Cast Irons (chip form)

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	4I	5m	6g	82b	107c	115a	122i
Description	Cast Iron	Cast Iron	Cast Iron	Nickel-Chromium Cast Iron	Cast Iron (Ni-Cr-Mo)	Copper-Nickel-Chromium Cast Iron	Cast Iron
Unit of Issue	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)

Elemental Composition (mass fraction in %)

Al (total)	(0.004)						
Arsenic (As)	(0.03)						
C Graphite	2.66						
C Total	3.21	2.59	2.85	2.85	2.99	2.62	3.47
Chromium (Cr)	0.118	0.080	0.370	0.333	0.693	1.98	0.151
Cobalt (Co)							
Copper (Cu)	0.240	0.89	0.502	0.038	0.205	5.52	0.033
Iron (Fe)							
Lead (Pb)	(0.001)						
Magnesium (Mg)							
Manganese (Mn)	0.825	0.74	1.05	0.745	0.480	1.00	0.530
Molybdenum (Mo)	0.040	0.029	0.035	0.002	0.83	0.050	0.008
Nickel (Ni)	0.042	0.041	0.135	1.22	2.20	14.49	0.047
Nitrogen (N)	(0.0016)	0.006	0.005				

Elemental Composition (mass fraction in %)

Phosphorus (P)	0.149	0.32	0.557	0.025	0.079	0.086	0.28
S Comb	0.043	0.133	0.124	0.007	0.059	0.065	0.087
S Grav						0.064	
Silicon (Si)	1.33	1.83	1.05	2.10	1.21	2.13	0.89
Tin (Sn)	(0.004)						
Titanium (Ti)	(0.03)	0.097	0.059	0.027	0.019	0.020	0.024
Vanadium (V)	0.024	0.033	0.056	0.027	0.015	0.014	0.012
Zinc (Zn)	<(0.001)						

- Certified values are normal font
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SRM	334	338	341	342a	892
Description	Gray Cast Iron	White Cast Iron (Carbon & Sulfur)	Ductile Cast Iron	Nodular Cast Iron	High-Alloy White Cast Iron (Ni-Hard, Type IV)
Unit of Issue	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)

Elemental Composition (mass fraction in %)

Al (total)				(0.009)
Arsenic (As)				(0.006)
C Graphite		1.23	1.38	
C Total	2.83	3.33	1.81	1.86
Chromium (Cr)			1.98	0.034
Cobalt (Co)				0.31
Copper (Cu)		0.152	0.135	0.270
Iron (Fe)				(77.4)
Lead (Pb)				
Magnesium (Mg)		0.068	0.070	
Manganese (Mn)		0.92	0.274	0.76
Molybdenum (Mo)		0.010	0.006	0.20
Nickel (Ni)		20.32	0.058	5.53
Nitrogen (N)				(0.019)

Elemental Composition (mass fraction in %)

Phosphorus (P)		0.024	0.019	0.054
S Comb	0.043	0.015	0.007	0.006
S Grav			0.007	
Silicon (Si)		2.44	2.73	1.83
Tin (Sn)				(0.02)
Titanium (Ti)		0.018	0.020	(0.02)
Vanadium (V)		0.012		0.041
Zinc (Zn)				

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